

RSC Sustainability

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See Mara G. Freire, João A. P. Coutinho *et al.*, pp. 1314–1331. Image reproduced by permission of João A. P. Coutinho from *RSC Sustainability.*, 2023, 1, 1314.

EDITORIAL

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Fundamental tools for managing sustainability

Mike Sutton*

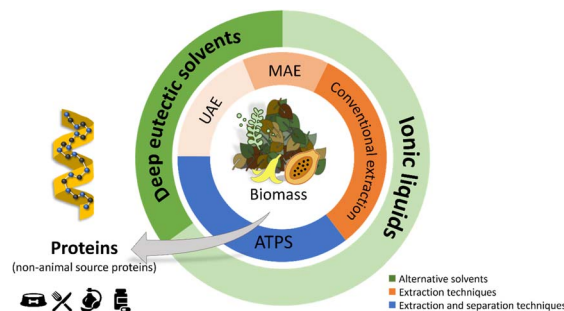


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Towards the sustainable extraction and purification of non-animal proteins from biomass using alternative solvents

Bojan Kopilovic, Ana I. Valente, Ana M. Ferreira, Mafalda R. Almeida, Ana P. M. Tavares, Mara G. Freire* and João A. P. Coutinho*



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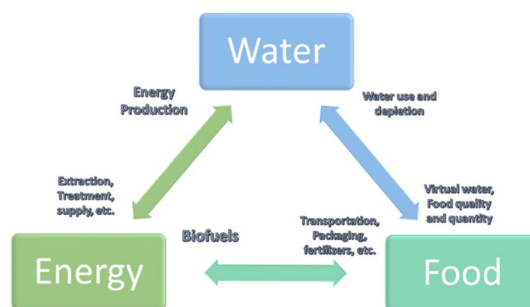


CRITICAL REVIEWS

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Sustainable design of water–energy–food nexus: a literature review

Juan Gabriel Segovia-Hernández,*
Gabriel Contreras-Zarazúa and César Ramírez-Márquez

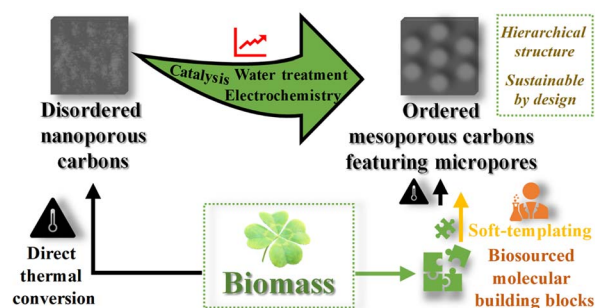


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A tutorial mini-review on nanoporous carbons from biosourced compounds: ordered hierarchical nanoarchitectures through benign methodologies

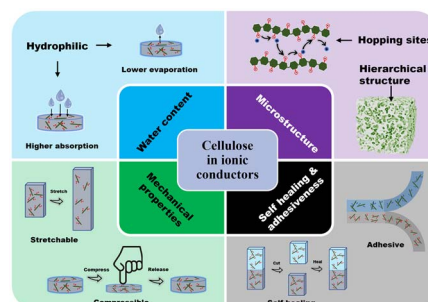
László Szabó,* Wim Thielemans, Jin Won Seo,
Frank Buysschaert, Dionysios D. Dionysiou
and Veerle Vandeginste



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Utilizing cellulose-based conducting hydrogels in iontronics

Kudzanai Nyamayaro, Savvas G. Hatzikiriakos
and Parisa Mehrkhodavandi*



PERSPECTIVE

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Enhanced nickel catalysts for producing electrolytic hydrogen

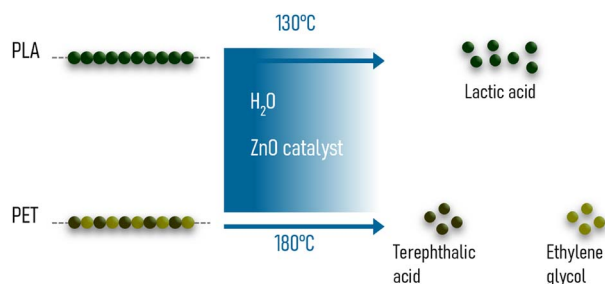
Rosaria Ciriminna* and Mario Pagliaro*

Electrolytic hydrogen
via new generation **Ni-based**
electrocatalysts



COMMUNICATION

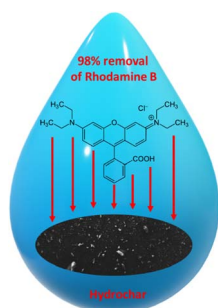
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**Hydrolytic depolymerisation of polyesters over heterogeneous ZnO catalyst**

Francesca Liguori, Carmen Moreno-Marrodán, Werner Oberhauser, Elisa Passaglia and Pierluigi Barbaro*

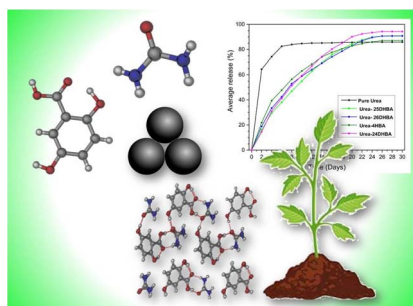
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**Hydrochar from *Sargassum muticum*: a sustainable approach for high-capacity removal of Rhodamine B dye**

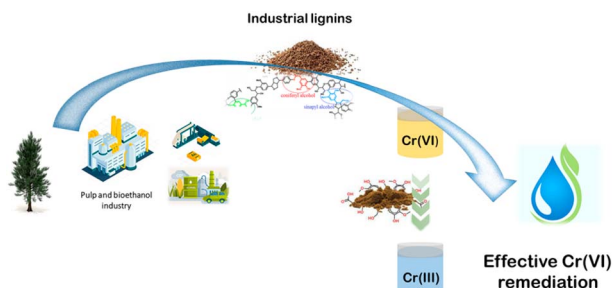
D. Spagnuolo, D. Iannazzo, T. Len, A. M. Balu, M. Morabito, G. Genovese, C. Espro and V. Bressi*

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**Mechanosynthesis of urea–hydroxybenzoic acid cocrystals as sustained-release nitrogen fertilizer**

Trishna Rajbongshi, Shalika Parakatawella, Diptajyoti Gogoi, Poonam Deka, Nadeesh M. Adassooriya and Ranjit Thakuria*

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**Industrial lignins as efficient biosorbents for Cr(VI) water remediation: transforming a waste into an added value material**

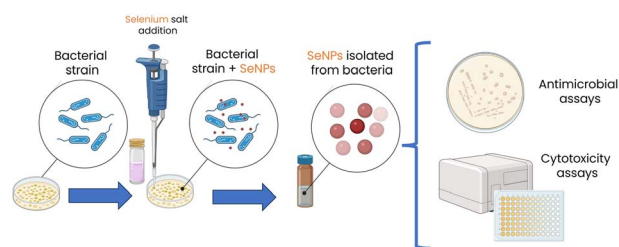
Marianna Vescovi, Matteo Melegari, Cristina Gazzurelli, Monica Maffini, Claudio Mucchino, Paolo Pio Mazzeo, Mauro Carcelli, Jacopo Perego, Andrea Migliori, Giuliano Leonardi, Suvi Pietarinen, Paolo Pelagatti* and Dominga Rogolino*



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Bacterial-mediated selenium nanoparticles as highly selective antimicrobial agents with anticancer properties

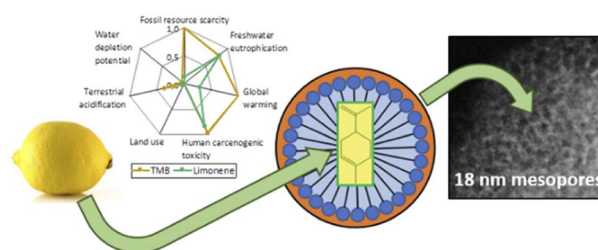
David Medina-Cruz, Linh B. Truong, Eduardo Sotelo, Lidia Martínez, María Ujué González, Yves Huttel, Thomas J. Webster, José Miguel García-Martín and Jorge L. Cholula-Díaz*



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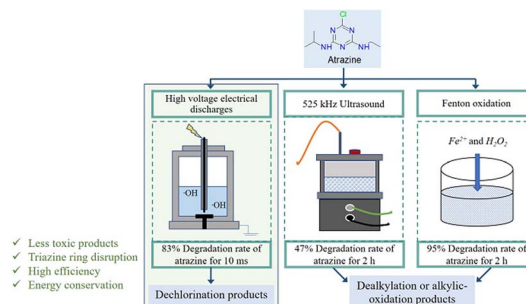
Umair Sultan, Katrin Städtke, Andreas Göpfert, Daniel Lemmen, Ezzeldin Metwali, Santanu Maiti, Carola Schlumberger, Tadahiro Yokosawa, Benjamin Apele Zubiri, Erdmann Spiecker, Nicolas Vogel, Tobias Unruh, Matthias Thommes and Alexandra Inayat



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Degradation of herbicide atrazine in water by high voltage electrical discharge in comparison with Fenton oxidation and ultrasound treatments

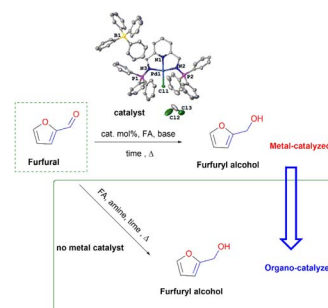
Junting Hong, Nadia Boussetta, Gérald Enderlin, Franck Merlier and Nabil Grimi*



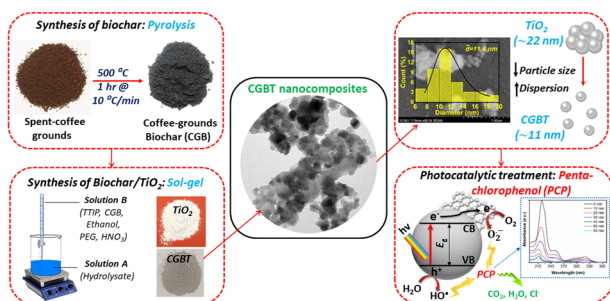
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Convenient hydrogenation of furfural to furfuryl alcohol in metal-catalyzed and organo-catalyzed environments

Asanda C. Matsheku, Munaka Christopher Maumela and Banothile C. E. Makhubela*



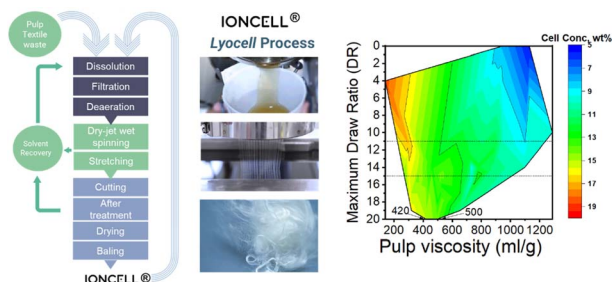
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Spent-coffee grounds-derived biochar-supported heterogeneous photocatalyst: a performance evaluation and mechanistic approach for the degradation of pentachlorophenol

Rahil Changotra, Himadri Rajput, Jie Yang, Mita Dasog* and Quan (Sophia) He*

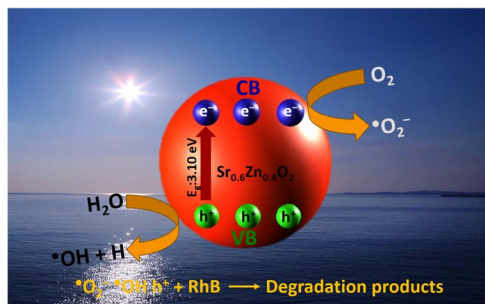
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Influence of DP and MMD of the pulps used in the Ioncell® process on processability and fiber properties

Yibo Ma,* Xiang You, Kaarlo Nieminen, Daisuke Sawada and Herbert Sixta*

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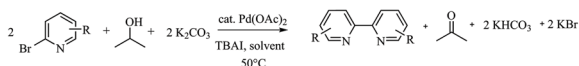


Effective photocatalytic degradation of rhodamine-B over Zn-doped BaO₂ and SrO₂ composites under UV and sunlight irradiation

Kirankumar Venkatesan Savunthari, Daneshwaran Balaji, Nivedita Sudheer, Mittal Bathwar, Manjunath Rangasamy, Ganesh Kumar Dhandabani, Alain R. Puente Santiago, Sumathi Shanmugam,* Kien-Voon Kong* and Vijayaraghavan R*

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Improved 2-Pyridyl Reductive Homocoupling Reaction Using Biorenewable Solvent Cyrene™ (dihydrolevoglucosenone)



Conclusions:

- Reductive homocoupling reactions proceed faster in Cyrene™ and Cyrene™ blends than in dimethylformamide
- The formation of a 2,2'-bipyridyl product accelerates the reaction rate

Improved 2-pyridyl reductive homocoupling reaction using biorenewable solvent Cyrene™ (dihydrolevoglucosenone)

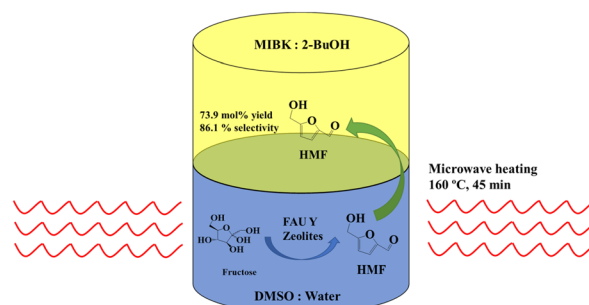
Daniel A. Webb, Zeid Alsudani, Guolin Xu, Peng Gao and Leggy A. Arnold*



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Hierarchical zeolite catalysed fructose dehydration to 5-hydroxymethylfurfural within a biphasic solvent system under microwave irradiation

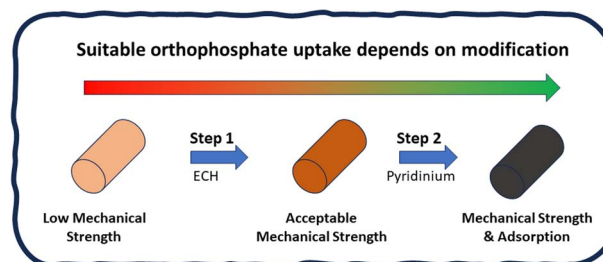
Huaizhong Xiang, Shima Zainal, Henry Jones, Xiaoxia Ou, Carmine D'Agostino, Jesús Esteban,*
Christopher M. A. Parlett* and Xiaolei Fan*



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Pyridinium-furfuryl-modified granular agro-waste adsorbent for orthophosphate recovery

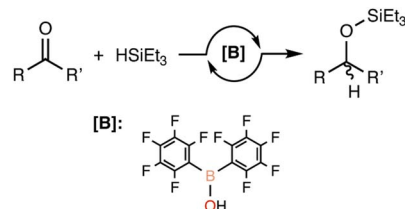
Bernd G. K. Steiger and Lee D. Wilson*



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Exploration of bis(pentafluorophenyl)borinic acid as an electronically saturated, bench-top stable Lewis acid catalyst

Taylor P. L. Cosby and Christopher B. Caputo*



- Lewis acidity assessed
- Stability of borane catalysts explored towards air and moisture
- Catalysis shown under ambient conditions, in undried solvents, and benchmarked to state-of-the-art Lewis acid catalysts

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Isolation of hydroxyapatite from Atlantic salmon processing waste using a protease and lipase mixture

Sarah Boudreau, Sabahudin Hrapovic, Yali Liu, Alfred C. W. Leung, Edmond Lam*
and Francesca M. Kerton*



CORRECTION

1565

Correction: Removal of metals and inorganics from rendered fat using polyamine-modified cellulose nanocrystals

Ezequiel Vidal, Frank Alexis, José M. Camiña, Carlos D. Garcia* and Daniel C. Whitehead*

